

## SAFETY DATA SHEET

Issuing Date: 01-Dec-2015

Version 1

## Emerald® JR

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Emerald® JR  
**Product code** 900000895  
**Product Use** Acid Fountain Solution for Sheet Fed Presses.

**Manufactured by**  
 FUJIFILM Hunt Chemicals U.S.A., Inc.  
 40 Boroline Road  
 Allendale, NJ 07401-0320

**Distributed in the USA by**  
 FUJIFILM North American Corporation,  
 Graphic Systems Division  
 200 Summit Lake Drive  
 Valhalla, NY 10595-1356

**Distributed in Canada by**  
 FUJIFILM Canada, Inc.  
 600 Suffolk Ct.  
 Mississauga, Ontario L5R 4G4

**Distributed Internationally by**  
 FUJIFILM Hunt Chemicals U.S.A., Inc.  
 40 Boroline Road  
 Allendale, NJ 07401-0320

**SDSs are available at the following website(s):** <http://www.fujifilmusa.com/msds>

**Company Phone Number** U.S.A: 800-473-3854 Canada: 800-263-5018

**Emergency Telephone** Transport-CHEMTREC Inside NA: 800-424-9300  
 Transport CHEMTREC Outside NA: 703-527-3887  
 Transport-CANUTEC Inside Canada: 613-996-6666  
 Medical Emergency (24 hour): 877-935-7387

**E-mail** EHS@fujifilm.com

## 2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
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GHS Label elements, including precautionary statements

Warning

Hazard Statements

Causes serious eye irritation



### Precautionary Statements

#### **Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear eye/face protection

#### **Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

#### **Storage**

Not applicable

#### **Disposal**

Not applicable

#### **Hazards not otherwise classified (HNOC)**

Not classified

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	5-10%
AMMONIUM NITRATE	6484-52-2	1-5%
MALIC ACID	6915-15-7	1-5%

### 4. FIRST AID MEASURES

#### **First aid measures for different exposure routes**

<b>General advice</b>	Immediate medical attention is required. If symptoms persist, call a physician.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Ingestion</b>	If swallowed, do not induce vomiting - seek medical advice.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes or clothing.

**Most important symptoms/effects, acute and delayed**

May cause redness, itching, and pain.

**Indication of immediate medical attention and special treatment needed, if necessary**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

None known.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

**Hazardous Combustion Products**

Carbon oxides. Nitrogen oxides (NOx). Ammonia.

**Explosion Data**

**Sensitivity to Mechanical Impact** none

**Sensitivity to Static Discharge** none

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

**Methods and materials for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE****Precautions for safe handling**

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

#### **Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control parameters**

#### **Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
ETHYLENE GLYCOL MONOBUTYL ETHER	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m <sup>3</sup>	

#### **Exposure controls**

**Engineering Measures** Ventilation systems

#### **Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Tightly fitting safety goggles.

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Green	<b>Odor</b>	Mild
<b>Odor Threshold</b>	Not available	<b>Physical State @20°C</b>	Liquid
<b>pH</b>	3.8	<b>Molecular Weight</b>	Not available
<b>Specific Gravity</b>	1.07	<b>Autoignition temperature</b>	Not available
<b>Flash point</b>	> 201 °F / > 94 °C	<b>Boiling point / boiling range</b>	> 212 °F / > 100 °C
<b>Decomposition temperature</b>	Not available	<b>Freezing Point</b>	Not available
<b>Melting point / melting range</b>	Not available	<b>Explosive Properties</b>	Not available
<b>Flammability Limit in Air</b>	Not available	<b>Partition coefficient</b>	Not available
<b>Oxidizing Properties</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Solubility</b>	completely soluble	<b>Density</b>	Not available
<b>Evaporation rate</b>	Not available	<b>VOC (g/l)</b>	205.11
<b>Vapor density</b>	Not available		
<b>VOC (lb/gal)</b>	1.71		
<b>Dynamic viscosity</b>	Not available		

### **10. STABILITY AND REACTIVITY**

#### **Reactivity**

Stable under recommended storage conditions.

#### Chemical stability

Stable under recommended storage conditions.

#### Possibility of hazardous reactions

None under normal processing.

#### Conditions to Avoid

Excessive heat. Freezing. This product contains an ammonia compound. Do not allow this solution to come in contact with household or industrial bleaches (Sodium Hypochlorite). Mixing of these chemicals can result in the release of hazardous or toxic gases. Inhalation of these gases may cause severe respiratory irritation.

#### Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases. Sodium hypochlorite.

#### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

##### Product Information

##### **Acute toxicity**

**Inhalation**  
**Eyes**  
**Skin**  
**Ingestion**

Inhalation of vapors in high concentration may cause irritation of respiratory system.  
Irritating to eyes. May cause redness and tearing.  
Non-irritating during normal use.  
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

##### Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
ETHYLENE GLYCOL	= 470 mg/kg ( Rat )	400 mg/kg ( Rabbit )	= 450 ppm ( Rat ) 4 h
MONOBUTYL ETHER		2270 mg/kg ( Rat )	
AMMONIUM NITRATE	= 2217 mg/kg ( Rat )		> 88.8 mg/L ( Rat ) 4 h

#### Information on toxicological effects

No information available.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** Irritating to eyes.  
**Corrosivity** No information available.  
**Sensitization** No information available.  
**Mutagenic Effects** No information available.  
**Reproductive Toxicity** No information available.  
**Carcinogenicity** None known.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target Organ Effects** Blood, Central nervous system (CNS), Eyes, Hematopoietic System, Kidney, Liver, Respiratory system, Skin.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 5507 mg/kg  
 ATEmix (dermal) 13358 mg/kg mg/l  
 ATEmix (inhalation-dust/mist) 19.7 mg/l

**ATE: Acute toxicity estimate**

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Contains no substances known to be hazardous to the environment or that are not degradable in wastewater treatment plants.

**Persistence and degradability**

No information available.

**Bioaccumulation**

Chemical Name	Octanol Water Partition Coefficient (log pow)
ETHYLENE GLYCOL MONOBUTYL ETHER	0.81
AMMONIUM NITRATE	-3.1

**Mobility**

No information available.

**Other adverse effects**

No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods**

Dispose of in accordance with local regulations.

**Contaminated packaging**

Do not re-use empty containers.

<b>14. TRANSPORT INFORMATION</b>
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<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>ADR/RID</u>	Not regulated
<u>ADN</u>	Not regulated

<b>15. REGULATORY INFORMATION</b>
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International Inventories

TSCA	Yes
DSL/NDSL	No
PICCS	No
EINECS/ELINCS	No
ENCS	No
IECSC	No
KECL	No
AICS	No

\*Yes - All component(s) of this product are included or are exempt from listing on the inventory.

\*No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal RegulationsTSCA Sections 4, 5 and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS No	SARA 313 - Threshold	Weight-%
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		Values %	
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	1.0	5-10%
AMMONIUM NITRATE	6484-52-2	1.0	1-5%

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
ETHYLENE GLYCOL MONOBUTYL ETHER	X	X	X	X	X
AMMONIUM NITRATE	X	X	X	X	X

**International Regulations****Canada - NDSL**

This product does not contain any NDSL chemicals.

**Mexico - Grade**

Slight risk, Grade 1

**Mexico - Carcinogen Status and Exposure Limits**

Chemical Name	Carcinogen Status	Exposure Limits
ETHYLENE GLYCOL MONOBUTYL ETHER		Mexico: TWA 26 ppm Mexico: TWA 120 mg/m <sup>3</sup> Mexico: STEL 75 ppm Mexico: STEL 360 mg/m <sup>3</sup>

**Other Regulations**

No information available

<b>16. OTHER INFORMATION</b>
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<b>NFPA</b>	<b>Health Hazard 2</b>	<b>Flammability 1</b>	<b>Instability 0</b>	<b>Physical and chemical hazards -</b>
<b>HMIS</b>	<b>Health Hazard 2</b>	<b>Flammability 1</b>	<b>Physical Hazard 0</b>	<b>Personal protection B</b>

**Prepared By** FUJIFILM Environment, Health and Safety, phone: 800-473-3854

**Revision Date** 01-Dec-2015

**Revision Note** No information available

**Disclaimer** **The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

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